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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,870	09/09/2003	Rene N. Ritter	414-34391-USCP	2078
44871	7590	02/03/2005	EXAMINER	
MADAN, MOSSMAN & SRIRAM, P.C.			LEDYNH, BOT L	
2603 AUGUSTA			ART UNIT	
SUITE 700			PAPER NUMBER	
HOUSTON, TX 77057			2862	

DATE MAILED: 02/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/657,870

Applicant(s)

RITTER ET AL.

Examiner

Bot LeDynch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-22,34-38,42-44,50-51, 53-54,56-58,72-74,87 and 90 is/are rejected.
- 7) ☒ Claim(s) 2,23-33,39-41,45-49,52,55,59-71,75-86,88 and 89 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner. *(There is no Fig. 12 b.)*
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

*Bot LeDynch*

**Bot LeDynch  
Primary Examiner**

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/21/04

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-5, 22, 34-38, 44, 50-51, 53, 54, 56-58, 74, and 87 are rejected under 35 U.S.C. 102(e) as being anticipated by Bittar (6359438). Bittar discloses the same invention as claimed: An apparatus for use in a borehole for electrical imaging during rotary drilling comprising:

(a) a resistivity sensor (100 and 125) having a specified offset from a wall of the borehole (the difference between the radius of 32 and that of 100);

(b) an orientation sensor (directional sensors of 60 or 26, see col.9 lines 5-13) making a measurement of a toolface angle of said apparatus during continued rotation thereof; and

(c) a device (32; the difference between the radius of 32 and that of 100) for maintaining said resistivity sensor at said specified offset; pad or rib 150; stabilizer (col. 8, line 42); processor 200; drill bit 32; conveyance device 10 (fig.7). Although specific columns, figures, reference numerals, lines of the reference(s), etc. have been referred to, Applicant should consider the entire applied prior art reference(s).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "said sensor" in claims 3-6, etc. are indefinite. Which sensor (resistivity or orientation) does it refer to?

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-21, 42, 43, 72-73, and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bittar (6359438) in further view of Aronstam et al (6443228). Bittar discloses substantially the same invention as claimed, except for the orientation sensor comprising a magnetometer, or an accelerometer. Aronstam et al discloses that orientation sensors include magnetometers and/or accelerometer for determining the position with respect to a known point and inclination of a drilling assembly during drilling of the wellbore (see col.5, lines 22-35). It would have been obvious to one of

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ordinary skill in the art to modify Bittar by including a magnetometer and/or an accelerometer for determining the position with respect to a known point and inclination of a drilling assembly during drilling of the wellbore.

It should be noted that application serial Number 09/836,980 does not support claimed limitations such as, "specified offset," or "toolface angle" (see independent claims). Consequently, the effective filing date of the instant application is its filing date.

***Allowable Subject Matter***

Claims 2, 23-33, 39-41, 45-49, 52, 55, 59-71, 75-86, and 88-89 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bot LeDinh whose telephone number is 5712722231. The examiner can normally be reached on Maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 5712722180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bot LeDinh, JD, PhD, DA  
Primary Examiner